"CORE"tastic Kids Newsletter

Attention and Focus

"You're not paying attention." "Stop fidgeting!" "Don't interrupt."

Can you imagine what it would be like to hear people talk to you this way every single day? If you can imagine it, or if it sounds just like what you're used to hearing, then you know what it's like to have ADHD.

ADHD affects each child in a different way. If you want to choose a good activity for hyperactive children, you must understand how they are affected by the disorder.

Physical activity for the ADHD child is important. It uses up excess energy he or she seems to have stored up and stimulates brain activity as well. Team sports and activities such as theatre can help teach hyperactive children important social skills. If your child doesn't like sports, you could try dance, swimming, cycling, or gymnastics--anything where there is contact with others. Martial arts is also a good activity--there is much self-discipline learned in the studio.

You could also try classes in creative exercise and motion. Music classes are one of the best ways to keep the creative hyperactive children absorbed and productive; the child also develops social skills in the class or ensemble environment. In fact, music stimulates much more than the musical abilities.

Family Reading Tips

- Read aloud together with your child.
- Leave out a word or phrase on each page. (Ex. Little Red Riding Hood said, "Oh, what big sharp _____you have, Grandma!")
- Have your child think of a new ending to the story.
- When reading a non-fiction book, ask your child what they know about the topic and what they want to learn.
- Discuss similarities and differences between stories. (Great with Fairy Tales)
- Alternate reading. You read a page, your child reads a page, etc.
- From time to time, invite other adults or older children to listen in or join in reading aloud.
- When you read, involve your child by having him/her point out objects in the pictures and follow the words with his/her finger.

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Where performance meets potential.

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Calendar of Events:

May 31, 2010
Memorial Day
CORE Closed

Summer Camps
Begin June 7, 2010

Body Works — From the Inside Out

What We Can Learn From Our Rodent Friends!

An awesome article from the New York Times titled, **Why Exercise Makes You Less Anxious** by Gretchen Reynolds, may just help us understand why exercise is so good for us; and we owe it all to the rats!

Researchers at Princeton University recently made a remarkable discovery about the brains of rats that exercise. Some of their neurons respond differently to stress than the neurons of slothful rats. Scientists have known for some time that exercise stimulates the creation of new brain cells (neurons) but not how, precisely, these neurons might be functionally different from other brain cells.

In the experiment, scientists allowed one group of rats to run. Another set of rodents was not allowed to exercise. Then all of the rats swam in cold water, which they don't like to do. Afterward, the scientists examined the animals' brains. They found that the stress of the swimming activated neurons in all of the brains. (The researchers could tell which neurons were activated because the cells expressed specific genes in response to the stress.) But the youngest brain cells in the running rats, the cells that the scientists assumed were created by running, were less likely to express the genes. They generally remained quiet. The "cells born from running," the researchers concluded, appeared to have been "specifically buffered from exposure to a stressful experience." The rats had created, through running, a brain that seemed biochemically, molecularly, calm.

For years, both in popular imagination and in scientific circles, it has been a given that exercise enhances mood. But how exercise, a physiological activity, might directly affect mood and anxiety — psychological states — was unclear. Now scientists are beginning to tease out how exercise remodels the brain, making it more resistant to stress. In work undertaken at the University of Colorado, Boulder, for instance, scientists have examined the role of serotonin, a neurotransmitter often considered to be the "happy" brain chemical. In those experiments, rats taught to feel helpless and anxious, by being exposed to a laboratory stressor, showed increased serotonin activity in their brains. But rats that had run for several weeks before being stressed showed less serotonin activity and were less anxious and helpless despite the stress.

"It looks more and more like the positive stress of exercise prepares cells and structures and pathways within the brain so that they're more equipped to handle stress in other forms," says Michael Hopkins, a Neurobiology graduate student at Dartmouth.

These changes don't happen overnight. It is said that the rats that ran for only three weeks did not show much reduction in stress-induced anxiety, but those that ran for at least six weeks did. Researchers are not clear as to how this translates into human exercise programs. The intensity and duration may be different for us but the evidence is clear that aerobic, endurance-based activity is beneficial to the brain and the body. So don't quit if you are exercising and start now if you haven't yet, the changes to your brain, your mood, your stress, and your body can be profound.

More Math Games to Play with Cards

Card Capture (addition, subtraction, multiplication, division)

Use a set of fact flashcards. Divide the cards equally between the two players. One player attacks, while the other player defends. The defending player shows his cards (problem side up) one at a time to the attacking player. If the attacking player says the right answer, he captures the card and adds it to his own. He can continue capturing cards until he answers incorrectly. When this happens, the defending player becomes the attacker and gets his/her chance at capturing the cards. This continues with cards being captured back and forth until one player winds up with all the cards, or has the most cards when time is called. You can even set the rules to the first player to capture 20 cards or any number you'd like.

Addition and Subtraction Turnover

Each player is given 11 cards numbered 0-10. These are placed face up in a row. Players roll two dice on a turn and may choose to add or subtract the two numbers shown on the dice. If the resulting sum or difference equals one of the number cards still face up, the player can turn that card face down. Next player then takes a turn. This continues until one of the players wins by turning all 11 of his cards face down.

"Boost your Brain Power for Testing"

Let's focus on three things that can help your students improve their chances to score up to their potential. By the way, kids never score above their potential; they're just not going to randomly make enough lucky right answers time after time after time. (*In statistics, it's called regression to the mean.*) But, they often underperform for a host of reasons, even when they should perform much better. While we could focus on dozens of variables that influence standardized testing, let's focus on: 1) brain chemistry 2) priming and 3) episodic memory triggers.

1. Brain Chemistry:

There are three chemicals to focus on for optimal testing results:

a) **Dopamine** (*It generally facilitates informational transfer within limbic and cortical networks to promote working memory and reward-seeking behavior, says Luciana, et al. 1998*) **Dopamine can be strengthened by:** 1) voluntary gross motor repetitive movements, like exercise, marching, relays, & playing movement games (**Jungle Gym and Vortex classes**J) , 2) enhanced by strong positive feelings like reunions and celebrations, and 3) enhanced by looking forward to something very good.

b) **Norepinephrine** (*It generally promotes a more narrowed focus, sharper attention and improved memory. This system plays a specific role in the regulation of cognitive functions, including sustained attention, working memory, impulse control, and the planning of voluntary behavior.*), **Norepinephrine is enhanced by:** 1) risk, like a student speaking in front of his/her peers, 2) urgency, like serious deadlines for compelling task, and 3) excitement, like theater, competition, comedy, the arts.

c) **Glucose** (*It provides short term energy and, in low to moderate doses, promotes enhanced memory.* Krebs DL, Parent MB., 2005.) **Glucose is enhanced by:** 1) food sources, complex carbos are best, but almost any source can do in a pinch, 2) physical activity (**Jungle Gym and Vortex classes** J), and 3) any time we are experiencing emotions.

2. The Power of Priming and Positive Suggestion:

Here's how to use the power of suggestion. You can influence testing outcomes by "prepping" their brain for success with a positive suggestion. Sound like Star Trek "Vulcan" Mind Control? Or, is it more of the "Obi Wan Kenobe" effect? It's neither. It has long been proposed that motivational responses that were subtle could serve as priming to effect academic performance.

A research study was conducted at a large research university in the USA. Here is what they started with:

23 undergraduates in Group 1 (were conducted in classroom settings)

32 graduate students in Group 2 (were conducted in classroom settings)

76 undergraduates in Group 3 (were conducted in laboratory setting)

The "mind games" manipulation came in the form of a phony answer key identification code. This study used a "Test - Bank ID code" (completely phony) on the front cover of a test. The ID Code was needed because participants were prompted to view and write it on each page of their test. The letters used were "A" (the positive priming for group 1) "F" (the negative priming for group 2) and "J" (the neutral, control group 3). Students who got and used the "A" on their ID Code outperformed BOTH the "F" and the "J" control group. Students are vulnerable to evaluative letters presented before a task, these results support years of research highlighting the significant role that our non-conscious processes play in achievement.

The next with priming and positive suggestion used peppermint odor during simple skill practice, performance, memorization, and alphabetization. Participants completed the protocol twice--once with peppermint odor present and once without. Analysis indicated significant differences in the gross speed, net speed, and accuracy on the task, with odor associated with improved performance. The study results suggest peppermint odor may promote a general arousal of attention, so participants stay focused on their task and increase performance. (Barker, et al. 2003.)

3. Location of the Test Itself (episodic memory triggers):

Next, use location of the test itself as an advantage. Changes in rooms can induce stress. Undue stress before "the big" test impairs memory, whereas memory performance is enhanced when the learning context (location) is reinstated at retrieval (testing) time. As a general rule, low to moderate stress is best for encoding and retrieving. It is best to match the encoding (original learning) and retrieval (test situation) stress level. It helps to ensure that students taking a test take it in the room in which they studied for the test. That's the power of episodic or context memory. But there's more to it.

Boost your Brain Power for Testing cont'd...

Stress is an issue, too. The study examined whether the negative impact of stress before memory retrieval can be attenuated when memory is tested in the same environmental context as that in which the learning took place. These results suggest that the detrimental effects of stress on memory retrieval can be abolished when a distinct learning context is reinstated at test time.

Stress impaired the student's memory when assessed in the unfamiliar context, but **not** when assessed in the learning context (Schwabe L., and Wolf OT., 2009.) In short, if your students can't be in the official test-taking room for the big test to learn the material, at least bring them into the testing room prior and do a review in that room a few days before the event.

Eric Jensen
CEO, Jensen Learning

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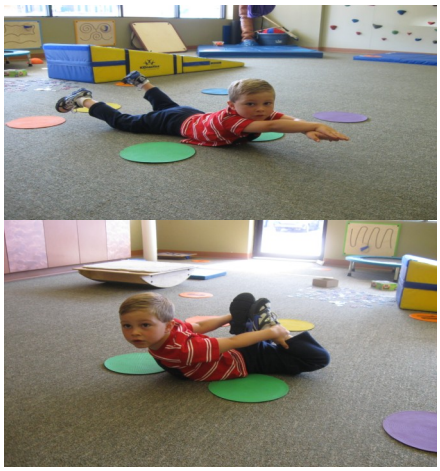
Exercise of the Month



"Superman"

The superman is a great core activation exercise. This is the anti-gravity posture known as prone extension. To do this stretch have your child lay flat on his stomach on the floor. Have the child raise his chin off the floor, bring his extended arms overhead close to his ears and lift his straightened legs off the floor. His body should be taut, only touching the floor at the midriff. The chest and neck muscles are lengthened as your core support is strengthened during this exercise. A school-aged child should be able to hold this position for 20 seconds. By adding a fun name to this exercise such as "superman" , superwoman or another super hero name will motivate your child to try this out. Keep practicing with your child until they can hold this posture for 20-30 seconds. To add a little more excitement have them turn the "superman" into a boat and rock back and forth and side to side, by grabbing their ankles behind them.

Reference: Ready Bodies Learning Minds, by Athena Oden, P.T.

Fun Outdoor Handwriting Activities: There are all sorts of fun activities that you can do with your child outdoors that will strengthen their handwriting skills and they will have a blast doing them!

- Draw a hopscotch board on the sidewalk or driveway and enjoy playing with your child
- Invite some friend over and play a game of crab crawl soccer
- Fill a spray bottle with water and water the plants
- Pick or cut flowers
- Climb a tree
- Pick up rocks and skip them across a pond

All of these activities help build handwriting skills, as well as motor planning and coordination skills, visual motor skills, and balance skills.

Get creative and have fun!!!